

The purpose of this invention is a glass holder device which is particularly intended to the treatment of optical glass lenses or other substrates.

In the area of optical glass lenses treatment, assisted by glass holder devices, optical glass is subjected to various cleaning treatments and/or of liquid application. The aforementioned glass holder devices consist of a frame provided with at least a horizontal bar and metal grips suspended one behind the other to the aforementioned bar and steadily welded to the latter in prevention of the falling of the grips, especially during the device transportation or while performing this treatment. Each grip carries an optical glass lens which is maintained on the aforementioned grip, in position appreciably parallel to the axis of the metal rod forming the body of the grip, by means of two lever-arms flexibly recalled one towards the other and clutching and tightening the aforementioned glass lens between their two free ends by pinching its peripheral edge and a stop on which the aforementioned glass rests.

The control operations of optical glasses are carried out by removing the aforementioned glasses directly from the glass holder grips with the fingers which causes scratching of the aforementioned glasses or leaving finger prints which will be built up on the glass especially during its polymerization.

Besides the fact of their monolithic configuration, existing glass holder devices show a significant blocking volume which does not allow reduced volume storage. Otherwise, the existing glass holder grips are not adapted to receiving optical glass of varied sizes and particularly thick or very thin glass.

The goal of this invention is to remedy these disadvantages by offering a universal glass holder device which makes possible dismounting the glass holder grips easily while ensuring their blocking in free rotation around the bar of the frame in the suspension position.

According to this invention, the glass holder device is more particularly intended for optical glass treatment or other substrates and is made of a frame comprising at least a horizontal bar of cylindrical shape supporting the glass holder grips and is primarily characterized by the fact that on one hand, a glass holder grip is made of a center rod forming the body of the grip and having on one end hanging means allowing to join in a removable way the aforementioned grips to the aforementioned bar, one behind the other on evenly spaced positions and locking means preventing free rotation of the aforementioned grip around the bar and on the other hand, holding in place means for the glass on the aforementioned grip, the aforementioned glass being maintained appreciably parallel to the axis of the center rod.

The center rod of the grip could be bent at one of its ends to form a hook allowing suspending the grip to the bar of the frame by ratcheting it with its hook in a notch cut into the aforementioned bar. The hook will be bent in U shape, this way it can create a space defined by two branches and intended to receive the bar which will be clutched by the two branches and one of which branches will be inserted in the notch which bottom is rectilinear to prevent the grip

from turning freely around the bar by its contact with the aforementioned branch.

The holding means of an optical glass on a grip could be consisted of two lever arms assembled around a common swivel axis, joined to the center rod, flexibly recalled one towards the other to clutch and to tighten the glass between their free ends by pinching its peripheral edge, the aforementioned glass rests upon the stop extending perpendicularly from the center rod of the grip.

In a preferred method of implementation the lever arms will be provided at their free end with a contact piece in the shape of blade, contained on its edge which is intended to be in contact with the peripheral edge of the glass in a round and curved cut defined by two points. The lever arms, by preference, will be implemented only in one part starting from the folded metal rod.

The advantages and characteristics of this invention will stand out more clearly from the following description which is referred to the attached drawing representing a non-restrictive method of its implementation.

- picture 1 presents a perspective partial view of the supporting axis for the glass holder device in accordance with this invention.
- picture 2 presents a side-view of the glass holder grip carrying an optical glass.

If you refer to picture 1, you can see that according to this invention, a glass holder device consists of a cylindrical bar 1 assembled on a metal frame, not presented, including at least a bar 1 supporting the glass holder grips 2 joined on the positions marked by the notches 10 evenly spaced and cut in the bar 1.

The glass holder grips 2 are each intended to hold an optical glass 40, 40' (picture 2) or another substrate in order to make it withstand no damage while subjected to various cleaning treatments or liquid application.

A glass holder grip 2 is made, on one hand, of a metal center rod 20, forming the body of the grip, bent on one end to form a hook 21 in U shape making it possible to suspend it to the bar 1 by ratcheting it from its bent end 21 in the notch 10, and on the other hand, of clutching and tightening means 3 for glass 40,40' allowing it to stay on the grip appreciably parallel to the rod axis 20 by pinching its peripheral edge as you can see on picture 2.

Space 22, created between U shape branches 23,24, is intended to receive the bar 1 which is clutched between a part of the branches 23,24 of which branch 23 is inserted in notch 10 of which bottom 11 is also rectilinear, the contact between two rectilinear surfaces respectively of one of the branches and of the bottom of the notch, is in effect to prevent the center rod 20 from turning freely around the bar 2 and from falling, especially during transportation of the support or during the evolution of the support in a sequence of treatments.

You can see that the depth of space 22 intended to receive bar 1 between the branches 23, 24 in U shape, is defined by stop 25 cut in the U shape internal branch 24.

Thus, glass holder grips 2 can be easily assembled to or dismounted from bar 1 by the simple latching of the hook 21 in the